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FORMERLY

AMERICAN GAS LIGHT JOURNAL

VOL. CXII., No. 11
WHOLE No. 3236

NEW YORK, SATURDAY, MARCH 13, 1920

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INDEX TO CONTENTS, PAGE 205 ADVERTISERS' INDEX, PAGE 28

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Making It So When the Consumer Pays His Bill He Will Do So Not Only with Thought of Gas Used, but Also of Huge Amount of Capital Invested to Bring That Gas to Him

Getting There by Definite Though Short Steps—Value of "Personality Stuff" in Creating a New Point of View as to the Gas Company

By W. A. FAIRSERVIS

Department of Public Information, Kings County Lighting Company, Brooklyn, N. Y.

Securing the confidence and support of the consuming public has been regarded as being sort of a useless and expensive proposition, but never has it been as profitable as at the present time.

Perhaps the finest example of this that could be cited is the rallying by the public to the company with which I am connected. It has been a wonderful demonstration of the value of building for the public. On every side during the past few weeks there has been coming to Ralph Elsman, vice-president, general manager and a director of this company a concrete example of the loyalty that he can expect from the consumers.

The first example came in a resolution that was passed by one of the most powerful civic organizations that is in the district served by this company, calling on the State Legislature to suspend the rates and allow an increase to this company. The resolution was as follows:

"Resolved, That it is the sense of this organization that a temporary increase in the rates paid for gas should be allowed to the Kings County Lighting Company in order that it may continue to give its adequate service."

CITIZENS' ASSOCIATION OF FORT HAMILTON AND BAY RIDGE.

It was a revolutionary proposition, for this association is composed of many of the conservative business men of our territory, but it showed that the good-will work, which had been carried on under Mr. Elsman's direction for so many years, had rebounded to the credit of the organization.

Within a week's time another civic organization in a different part of the territory went on record with a resolution, favoring the increase in rates for the gas company, and one after another the influential men of the district expressed their feelings in the matter and all of them were favorable. Now the question as to just what has entered into this campaign of winning public good-will arises.

"PERSONALITY STUFF"

In the first place it has been the policy of keeping the public informed as to just what is going on in the company. It was felt, and I believe justly, that the public was entitled to know every move that was made because it was one of the industries that so vitally affects them. This was done entirely by means of publicity in the newspapers, hanging the various items of the propaganda on real news events. It was followed by the personal appearance of Mr. Elsman before the various civic associations and also by his active participation in all of the affairs of the different associations that had any effect on the civic life of the community. This is what is termed in newspaper parlance as "personality stuff" and is perhaps one of the strongest arguments that any public utility has to-day to offset the general feeling that public utility corporations are soulless.

Another point that was of inestimable value was the fact that courtesy was and is insisted upon at all times from every employee of the company in dealing, not only with the public, but with his fellow workers. This attitude and the knowledge that the consuming public has gained that the company at all times is going to be just to them are the two fundamental principles.

When it became necessary recently to go before the public and ask not only its support but its active cooperation, all of these facts contributed to the ready and whole-hearted response. At once there started a wave of public opinion that grew stronger with the passage

of each day, until now almost every consumer has expressed his or her opinion and it has been fair and just in each case to the company.

Getting Good-Will at Minimum Expense

This good-will publicity has been accomplished at a minimum expense, and its effect cannot be measured in dollars and cents.

One of the ways of getting this is by frequent use of the newspapers, not in the paid advertising columns, but by furnishing real news items to the editor. Every editor is anxious and glad to have a news story furnished to him, particularly where he is assured of its accuracy. The proper preparation of a news story is, of course, something that comes as a result of training, and is usually best done by a newspaper man who, with his trained sense of news, will at once seize upon the vital points of any article or argument, and the result will be that there will follow a large use of all of the copy furnished by the company. Abstract subjects or subjects dealing with matters that are not of home consequence or questions of the proper kind of tubing to use on various appliances, etc., are not of real news value. That is advertising and should be placed in the paid advertising columns. It is obviously unfair to ask a news editor to print something that is of no real interest to his readers. When a story is furnished to an editor it should contain the news, and if the one being written about is prominent give his views on some current feature.

It frequently is possible for the head of any public utility company to express his opinion on subjects of the day and connect his company up with the progression of affairs and of the community. All of these things must be taken into consideration in undertaking or starting a campaign along these lines. Now let us see just where the value of this publicity comes in. In the first place we will say that the company has furnished a story to the newspapers. For the first time it is announced that a certain size town has twenty-five miles of main, this mileage being given as a total and not divided into the different sizes of main that have been laid. Perhaps a round figure estimated value of this main has been given also. Now this is put in the form of an announcement and is sent to the newspapers. The newspaper is read by one of the consumers who is mathematically inclined, and he at once is impressed by the great total of mileage shown. During the course of the conversation the next day at his club, where he is having his lunch or perhaps when his neighbor drops in that evening, he makes comment on the story. His neighbor, perhaps, has not read it, but is interested in it. The question is discussed and if the story has been handled properly it has told some of the difficulties of laying this main. Now here are two business men who have been placed in possession of facts by the company. They can realize just what a mile of main means and they also know that when that mile of main was laid it was done on a footage basis so that each portion of the mile represents real toil. The impression that this story makes on the reader's mind is a favorable one, because it is constructive. It means that the next time the man pays his bill he will do so not only with the thought of the gas that has been supplied, but with the thought of the tremendous amount of capital that is invested in the main that has brought the gas to him. Now, therein has been found a point of contact with a certain percentage of consumers, and if this is followed up at frequent intervals the consumer has been informed regarding the activities of the gas company without having had thrust upon him the burden of digesting many facts at one time. The publication of each additional fact represents a definite step forward and one which cannot fail to add to the accumulation of public goodwill that is coming along.

When the public has been sufficiently informed of all of these facts, and an emergency arises in which the co-operation of the public must be sought, it is not necessary to go into detail regarding the trouble. The mere statement that there is trouble in the mains of such and such a character, or trouble in the lines or the plant, carries with it to the consumer's mind the situation as it actually stands, and it is not necessary then to do a lot of explaining when there is no time for it. Also the publication of these facts brings out very clearly the necessity for charging a certain price for the commodity which is sold, and when it becomes necessary to make an appeal for an increased rate, the consumer, when told that the appeal has been made, at once says:

"By George, that company has got a lot of difficulties, it has got a large investment, it is run by fellows they are all on the level all right. I guess I can see the reasonableness of their request."

Getting in Ahead of the Emergency

When this thought has been and can be implanted sufficiently in the minds of the consumers then 75 per cent of the battle has been won and justice will be assured, not only to the company, but also to the thousands who depend upon it for their welfare.

It may seem that this is an abstract or academic question, but it is not. It is vital. It is essential and it is necessary to-day with each and every company to carry on a definite propaganda of spreading facts to the consumers so that there can be no misunderstanding arising when an emergency faces the company.

But, unless these facts are properly and concisely presented, it is utterly impossible to accomplish anything, and the work that might have been done for the benefit of the company has been noticeable by its omission. Properly presented facts will always bring real concrete results.

The newspaper of to-day is the great schoolroom of the world, and in it every person is a scholar. These are facts which are easily verified, for if you will just stop to think for a moment of where you get your information regarding current topics and how your opinion is either formed by yourself or formed by you.

That is the work that we are attempting to do in the Kings County Lighting Company, and it is a work that is showing its results each day.

Kings County Company Asks Rehearing

The Kings County Lighting Company, of New York, which recently lost its fight to enjoin the public authorities from enforcing the 80-cent gas law, has applied to Supreme Court Justice Greenbaum for a rehearing. He reserved decision, giving the City of New York, through the Corporation Counsel, time to file opposing affidavits.

Counsel for the company said it is losing $1,500 a week on the production of gas at the present rate.

Count Up the Appliances Installed but Not in Use

Also Estimate the Numbers of Transfers Being Made and Consider Their Relationship to Gas Company Merchandising Plans

By EDWIN DEAN

If the average gas company manager knew his territory half as well as he would like to he would be getting considerably fresh food for thought nowadays.

In at least one territory more old rusty coal ranges have been brought back into commission this winter than ever before. People who would have had them out of the kitchen years ago—were it not that they provided a handy and broad shelf—are glad they have them. It isn't because it's been an especially cold winter, either. The majority of these people have more than ample heating capacity without the coal range.

Aside from the cut in on the business, due to these recovered coal ranges, there is less gas burned for water heating. People are beginning to *plan* their use of hot water. They bathe, not in the old haphazard manner every time they feel the impulse, but more or less on schedule.

Another surprising development is the number of second-hand appliances going into new installations. An enterprising plumber is responsible for this. He found an abnormal number of appliances no longer used. When Mrs. Jones, who is wealthy, inquires about a gas heater, he queries her as to the advisability of being satisfied with a used heater—it will be just as serviceable for all the years she will have it and it will cost less. Mrs. Jones, being convinced, he makes a dicker for one of those idle appliances he has come across—and profits both ways.

No, as has been stated, it isn't the severe winter. It is $1.25 gas where before it cost a dollar, and lack of proper preparation of its consumers on the gas company's part.

Getting the raise from the commission seemed enough of a job in itself; getting the benefit of it from the public was left to chance.

Unthinkable that the Condition Could Be General

It may be the conditions in this territory are not duplicated elsewhere. It is unthinkable that a gas company should leave their consumers so entirely on their own resources in readjusting themselves to a new viewpoint on gas rates.

It may be said that in this territory the increase is not unpopular. The public has seen the need of it from the gas company's side; realized it was inevitable.

But the gas company should never have left it to its consumers, unaided, to digest the facts.

Readjustments to meet altered conditions are not new with these people.

Once they ordered their meats as their tastes inclined them. If they felt like roast beef, it was roast beef. If they felt like round steak, a leg of lamb, that was the order. Then came advancing prices of meat. Perhaps they could still have afforded to cater to their tastes, but they were accustomed to the meat factor in the family budget amounting to a particular sum. Their instinctive tendency was to so readjust as to keep it around that sum. The question of which was a few cents less a pound began to determine whether it would be roast beef or roast lamb for dinner.

It was the same with clothes. Men and women got into the habit of spending so much a year on this item. Clothes went up, but each struggled hard to keep the total spent for them down to the customary figure. They wore them out more thoroughly than before, and bought less.

The Natural Tendency

The consumer left unaided in digesting a gas rate increase will adopt the same methods in gas use. He will not see the difference.

The public has had the gas company's situation as to cost of production and selling price made more or less clear to it. How much effort has been directed towards retaining its volume of use at an equally higher or higher figure, even at the higher figure.

If heating water by gas at one dollar a thousand is really a wise expenditure for the consumer, heating it at a dollar twenty-five is equally wise. This latter is by no means a prohibitive cost. It is merely a matter of what one has been accustomed to.

When the writer came East from the natural gas sections, he strongly doubted if gas for any purpose wasn't an extravagance. He had been accustomed to paying twenty-five cents a thousand and he was met with a charge of a dollar and twenty-five cents. This seemed beyond reason. To-day, with gas at two dollars a thousand, he would use it for water heating, cooking and auxiliary space heating. His viewpoint has been changed. But it took years for him, unaided, to have it change. What the years did for him the gas company must do for the average consumer in a few months. And it is possible.

When gas rates hover around two dollars a thousand, it may be taken from the bounds of economy in industrial operations, but not from the ordinary domestic tasks.

The Time to Sell

That in proportion to what is gotten from it, gas at two dollars a thousand is still a good buy for the householder for lighting, space heating, water heating and cooking, is demonstrated by the fact that in the old days when all things were cheaper it was being sold amply for such purposes at such rates and higher.

It is odd, too, but a fact nevertheless, that when the householder seeks to readjust as to gas by turning to coal, he does not take into account that coal is also higher in price, in general, considerably more relatively than gas.

If he secured economy, or convenience that made the slight difference in cost immaterial, from cooking with gas instead of with coal, likewise in heating water, etc., a few years ago he secures the same to-day, only more so, even with gas at a higher figure.

The scurrying away from gas on the part of the consumers in the section we have cited is all very silly when it is analyzed. But the consumers there have not analyzed it. The gas company should have done this for them.

These are *the* days for merchandising gas appliances. And the surprising thing is we hear so little of such activity on the part of gas companies. Yet the position of gas in contrast with coal is as advantageous and more so than it ever has been as a domestic fuel.

The plumber I have pictured may be the only one in the country, but I strongly doubt it. It is really amazing to witness how many seem to discover a good thing at practically the same time—witness the beginning of gas.

His unique opportunity would never have been presented had not a large number of people begun to discontinue use of their appliances.

The educational opportunity of the gas company having passed in this case, the only remedy that seems left is to go out in hard merchandising and sell the idea of recent improvements.

Everything that continues to sell improves with the passage of years. The gas range of earlier days and the gas range of to-day have little in common.

If I buy a gas appliance to-day, I want a new appliance. One taken out of another's house will not suffice, even if it has not been once lighted.

When a gas consumer installs an appliance, it is best for him and best for the gas company that he install a new appliance, and thoroughly modern.

We are to-day in a period when, even aside from its immediate profit and the lower overhead due to higher loads, we should be merchandising with all the energy we have to give it.

What Has the Quest for the "Experienced" Man Cost American Business?

There is nothing to my mind which does more to keep back American business than the fetish of experience, declares Mark O. Prentiss, vice-president of the National Surety Company in *System*. Of course, one learns by experience, but most people seem to learn more about the ways that things cannot be done than about the ways they can be done. The other day the office manager of a large financial institution complained to me: "I cannot get an experienced man to assist me. I have advertised and advertised but no one ever seems to have done exactly this kind of work. I have had dozens of applications, but always they are inexperienced in exactly what I want."

"I am glad to hear it," I answered. "I do not think you ought to be able to hire anyone to teach you your own job. When you ask for someone of experience you are really asking for somebody to tell you how to do your job. You will not get anyone who is not a fourflusher. Why do you not take somebody now in the office. Everybody that you hired here was promised at the time that he would be advanced—but here you are trying to get someone from the outside to go over their heads.

"Take one of these boys around here, find out what the job is yourself, and then teach it to him. You will get more real enthusiasm than out of a dozen of your 'experienced' people. Any one of these boys will turn to and he will not have experience enough to know what cannot be done—therefore he will do it."

Application of Gas in Laundries

Gas Engine the Most Economical Power Unit—Drying Closets Most Important Part of the Plant.

The questions to be considered in respect of the application of gas to the laundry industry suggest many useful topics which also have bearing upon other industrial applications. Here is a case where a considerable demand for power exists together with a similarly considerable demand for heating. This suggests possible alternatives of no mean interest. Economical power generation only would simplify a decision as to the type of machine to be installed, just as it would be a simple matter to solve the problem of obtaining an economical heating service. Is it therefore advisable to install independent power and heating plants, or would it be more provident, all things considered, to effect a compromise and run the power and heating services interdependently?

The All-Steam Laundry

If the particular laundry business is of considerable magnitude, one would at first be inclined to advocate an all-steam plant and install two or more boilers working at high pressure, say 150 lb. per sq. in., and generate the power required for the machines and for illumination by a simple steam engine exhausting against a steam pressure of, say, 60 lb., leading this steam for the various heating processes throughout the shops, by a ring main, which would also have a connection, through a reducing valve, with the main boiler, so that when the steam required for heating exceeded the volume passing through the engine the necessary additional amount would automatically be supplied from the high-pressure main. With the installation of an economizer, water softener and condense return to the hot well, and, of course, oil separator, a very economical plant would result. There would be one disadvantage, however. For the best results the power load would require to be less, as far as steam consumption is concerned, than the heating service. Otherwise, if the engine passed more steam than the heating apparatus would consume, then the exhaust at high pressure would have to be released to atmosphere, with consequent loss. In fact, the two demands would have to be nicely proportioned, and at the end of the week, when the washing and drying is finished and only the ironing and finishing is in hand, the state of affairs would not be such as to give economical results. Similarly, at the beginning of the week, when the washhouse is in full swing, but the other departments comparatively idle, steam would be raised at high pressure to serve the engine, although the load upon it was not up to the average, and a great proportion of the heating load would pass the reducing valve.

It is for this reason that engines working against a moderate back pressure are not used in laundries. Therefore when steam engines are installed these have to be of a much more economical type if working expenses have to be kept down. Engines with variable cut-off valves and compound condensing cylinders are then necessary, but these are expensive to install, maintain and run, seeing that to get best results an engineer of experience has to be put in charge and he is a man who cannot be employed in other work in the laundry. To install a simple engine for the work is quite unprofitable.

Gas Engine as Power Unit

The experience of laundry managers generally has led them to run the power and heating units independently, if utmost economy is required. The most economical power unit is the gas engine. This is undeniable for the powers required in laundry work. Whether the engine should be belted to shafting or be used to generate electric current to serve motors in different rooms then becomes the problem. A solution has been found in many instances by placing the engine near the washhouse and driving the washing machines and hydros from shafting, where most of the load occurs. According to the ground plan of the laundry, the power required for the ironers and calenders is then transmitted either through a belt-driven shaft of smaller size or electrically from a dynamo capable of dealing with the lighting load as well as the machines in the finishing rooms. The latter is found to be a very convenient plan, as then any addition to the drying closets can be made irrespective of the position and alignment of shafting, and an electrically driven fan can be wired up just as occasion requires. In the hand-ironing room electricity is frequently employed for the hand irons, as then the workers are entirely unaffected by the gas fumes given off just below their heads, and can work the more quickly at the end of a long day. The current being supplied by the gas engine ensures that its generation is at the lowest cost, and the efficiency of conversion of electricity into heat is reasonably high in hand irons. What is perhaps lost in heat efficiency as compared with gas irons is counterbalanced by the increased output by the workers towards the close of the day.

Drying Closets

The drying closets are an important part of the laundry, as the efficiency of these sets the pace to all the other departments. It is generally considered that air should be warmed by being brought into contact under the pressure of a propeller fan with a bank of steam-heated tubes, and then passed into the drying chamber, within which the warm air is boosted and stirred up by another fan. The latter considerably quickens the drying. The water or rather moisture laden air, being lighter than dry air, ascends, and a variable aperture in the roof permits this to escape. The air pressure within the drying chamber should be just sufficient to keep the clothes slightly on the move when suspended, as this movement aids the process by bringing the material into contact with another portion of the air current, much in the same way as clothes dry quickly out of doors in a slight breeze. To regulate the amount of air permitted to escape through the top aperture, readings should be taken within the chamber from time to time with a wet and dry bulb thermometer, so as to keep a due proportion between the two readings.

Electricity Supplied by Gas Engines

The power taken by a hydro-extractor when starting up is considerable, and frequently slows down every other machine in the place if the engine is anywhere near its rated output. When several are installed they should be put in the charge of one or two men only, so that one machine is at full speed while another is starting up and a third is slowing down. When arranged in this way and driven from the same line shaft the minimum load variation is caused.

Gas engineers and inspectors should never hesitate to install electrical apparatus in connection with gas engines. In the first place, current can be more cheaply generated by gas engines than it can be purchased; secondly, the consumers are given all the conveniences and cleanliness that electricity offers; and, thirdly, any subsequent change over to public electricity supplies will be merely an experimental and temporary one. It will be found that the lesson will have been learned once and for all by the user, and never again will he wilfully or knowingly make an experiment that will prove costly. If the service be combined with a periodical inspection of the engine for the purposes of tuning it up to give best results, then the more keen the competition the greater the victory, and the larger will be the aggregate power load throughout the district —for one satisfied customer is an incomparable advertisement.—*Gas World.*

Celebrations by Gas Light

Copartnership Journal has delved into the early uses of gas lighting on occasions of public rejoicing.

The first recorded use of gas on such occasions was the illumination of the Soho Works of Matthew Boulton and James Watt in Birmingham on the occasion of the Peace of Amiens in 1802. Not much novelty of design was manifest, the figures consisting mainly of royal monograms and initials.

Winsor's advertisement about 1804 presents an ambitious scope of what could be accomplished:

"As to illuminations, they may be carried on to the utmost extent of beauty and variegated fancy, by this docile flame, which will ply in all forms, submit to instant changes, ascend in columns to the clouds, descend in showers from trees, walls, etc., arise from the water, and even in the same pipe with a playing fountain.

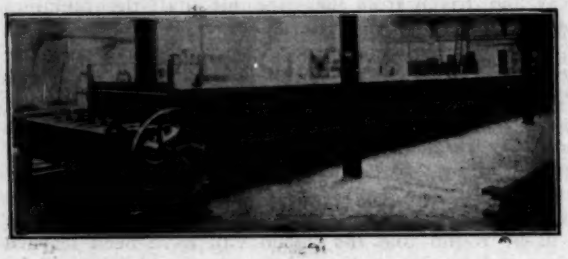
"The constant varying of the flames in rooms and gardens, between pyramids, festoons, garlands, roses, flambeaus, etc., etc., afford to the spectator an extraordinary and most delightful sight; cherish the soul, and create good humor, by uniting conveniency, utility and pleasure."

Gas in Biscuit Baking

Using Exhaust Heat from Gas Engines to Generate Steam—Biscuit Baking Oven Can Be Brought from Cold to Baking Heat in an Hour

It is extremely fascinating to watch the process of biscuit baking in large works where the methods are based upon up-to-date production lines. Indeed, the whole process of baking, from the preparation of the grain, manufacture into flour, conversion into dough, shaping into desired forms, progress through travelling ovens, and automatic handling by machinery (conveyors and elevators) to the packing bench, and thence, in bulk, to the despatching van or to stock rooms, is one of the greatest interest to engineers, and especially to those who are able to appreciate how the application of gas has enabled detailed improvements and general economies of no small moment to be brought about.

In a number of modern flour mills gas engines have been installed to generate electric current for serving



motors throughout the departments and to give illumination. The utmost care has been taken to insure minimum fuel costs, and in this connection exhaust-heated boilers are used for steam generation, the steam being required for conditioning wheat and for other purposes. With the high load factor consequent upon the regular running of the roller plant throughout the whole of the week there is every chance for the gas engine to demonstrate its peculiar advantages in the economical generation of power; and in the fact that extensions necessary from time to time are always in the direction of making still further use of gas power it may be recognized that, from all commercial points of view, flour millers consider that no other form of power plant has superior claims.

In the bakery proper power is required for the mixing, kneading, and oven machinery as well as for the mechanical handling of the product, and modern practice makes full use of electricity as a convenient method of power transmission. But, as in flour mills, the current is most economically generated by gas engines. Although in this case the working hours are not continuous throughout the week, the advantages that gas engines offer are such as to preclude stand-by losses. The units can be so designed as to deal most economically with the loads prevailing at intervals, and the absence of solid fuel enables the whole bakery to be kept clean and free from the dust and grit inseparable from coaling and stoking operations, however remote these may be from the bakery; for the finest particles are carried by currents of air even for long distances, especially on windy days.

It is usual to instal dynamos for 200 to 220 volts, this being suitable alike for power and for lighting. The running of cables presents no difficulties and the electrical installation is safe with such low voltage. For costing purposes it is convenient to use separate cables for lighting and for power, and electricity meters should be placed on the circuits of such departments in which it is desired to plot "output" against "current." Only in such way can true operating costs be obtained.

Making the Biscuits

Having been mixed and kneaded, the dough is tipped on to a bench of steel plate and passed through rolls to bring it to the desired thickness. Two or three passes backwards and forwards through the rollers is sufficient to form the dough into a slab of equal thickness and of uniform width. An operator with a sharp knife cuts off a convenient length—and it is surprising to note the dexterity with which he thus obtains practically unvarying lengths, although no special guide is arranged for this purpose. The dough is now in the form of a sheet and is transferred to a table at which the operators place a sort of steel grid on the sheet, pushing it forward under a press head which forces the grid through the slab of dough. The press head being lifted, the grid and the slab are pushed farther along the table, and other operators remove the grid and pass it back to be used again. The sides of the slab are then lifted and the trimmings come away in a sort of perforated pattern, leaving the embryo biscuits on the table. The perforated slab of dough is passed back to the operators at the rolling machine, who reincorporate it in the lump of dough, so that it is once more rolled and nothing is wasted.

Further operators take the embryo biscuits and place them upon the track of the gas-heated travelling oven. The biscuits pass through the whole length at a speed which ensures their arrival at the other end "done to a turn." There they are deposited on a cross travelling track, usually of the endless band type, and this delivers them to a hopper in connection with a form of bucket elevator, which automatically delivers them on an upper floor. There they are automatically fed to another endless band, which takes them to a packing table. From this they are picked off by hand and packed into containers. When full the containers are finished over with a layer of paper shavings, the lid is put on, and the "tin of biscuits" is then placed on another conveyor leading to the pasting and labeling bench. Here the lid is made airtight by a pasted band, and over this is wrapped the usual colored paper label extending over the four sides. This, in some instances, is entirely done by hand, but in others the label is pasted and applied by machinery. The finished container is then put on yet another travelling belt and sent either to the stock room or to the despatching department for packing into tin-lined export cases.

The Oven

The gas-heated travelling oven shown is the Baker-Keith patent chain oven, adopted by the leading biscuit manufacturers in England, France and the United States. The oven chamber is built of steel with inner and outer sheets, between which is packed non-conducting material to minimize radiation losses. The baking chamber is heated by a double set of patent burners, part of these being arranged under the travelling chains and part above the biscuits. The chains themselves are of the roller type, requiring little power for driving as compared with the chains of the old type, which involved a serious amount of friction. No chain tightening gear is required, as the slack side of the chain passing over guides under the baking chamber keeps the top side taut. Each burner is separately controllable, and in every part of the oven both top and bottom heat can be made from one class of biscuit to another—which may require entirely different conditions and temperatures—in a few minutes.

The steel-cased oven can be brought up from cold to baking heat in about one hour, and after a night's stoppage can be reheated in about half an hour. During the whole of the day it gives out uniform work, and there is no gradual drop in temperatures during a day's run such as frequently occurs with brick ovens. Pressure gauges are fitted which enable the foreman of the bakery to reproduce any given baking conditions at any time.—*Gas World.*

Gas Sales Association of New England Devotes Good Part of Season's Second Meeting to Devise Means of Getting Friendship of Consumer

R. Buckminster's Paper on the Many Sides of the Commercial Department Starts Helpful Discussion

At the second 1919-20 meeting of the Gas Sales Association of New England, William Gould, governor, announced that one of the members, Harry Norton, had been made director of the American Gas Association.

Announcement was made of the appointment of H. J. Pettengill, Jr., of Woonsocket, R. I., as secretary, vice J. B. Anderson, resigned.

Mr. Gould then introduced R. Buckminster, of Pawtucket, whose paper, "The Many Sides of the Commercial Department," was of great interest to all present.

Before reading his paper Mr. Buckminster introduced an idea which, so far as the Gas Sales Association is concerned, was new. He distributed multigraphed copies of the important features of his paper so that the listeners might note thereon, opposite the various points, any questions or comments which came to their minds as the paper was being read. Judging from the quantity and quality of the discussion following the paper, the idea is excellent.

Mr. Buckminster's paper follows:

I believe you will agree with me when I state that the officials and department heads of gas companies are more energetic in their efforts to furnish the best service to their customers than those in any other line of business or public service interests. From the president down to the foreman we are continually and persistently driving home the meaning of the word "Service" to our employees.

The question I ask you to-night is, "How satisfactory a service are you really giving?"

When we were children, going to school, it was the custom to review our work and have examinations from time to time in order to determine just what we had accomplished. I know of no better method than this to apply to our own case, so suppose we review our organization.

I will assume that you already have the necessary personnel to handle the work.

A customer approaches your place of business. He is apt to first take notice of your window display; and you know that first impressions sit deepest in a person's mind.

Window Display

Is it tidy and attractive?

Is the lighting effect good?

Is the display changed frequently?

Do you get full value from this low-rate advertising medium?

Lastly, do you attract the public eye with displays to further the cause of the various campaigns?

Upon entering the office one unfamiliar with arrangements would pause to locate the particular clerk that could give him or her the attention or information desired.

Floor Salesmen or Salesladies

Do they advance and greet the customer who has given them a lead by hesitating at the threshold, or do they sit unconcerned behind a desk?

Is their appearance neat and disposition good, accompanied by a natural smile?

Are they familiar with routine and filing of orders or applications, and in a general way of the operating end of this department?

If the customer desires to make application for gas service, is there a particular person thoroughly educated to handle this work to the satisfaction of all concerned, or is the order received by various clerks and salesmen?

Information and Order Clerk

A clerk to fill this position efficiently must necessarily be familiar with the routine of orders at the office and distribution department, and have a fair idea as to what the requirements are in executing the different orders. The personality and disposition of the clerk are of the utmost importance. If the majority of the applications and complaints can be received by one clerk, the possibility of error is lessened and the distribution department knows whom to communicate with if there is further information needed on any particular order.

As far as possible all orders should be written directly on the order machines rather than to make memoranda, which are liable to be mislaid or lost. I cannot impress upon you too strongly the importance of recording information regarding notifications of gas leaks. The extent of the leak, time reported, how long noticed, by whom reported, and any other condition that would help the shop department to intelligently execute the order should be obtained.

When a customer departs he or she naturally expects that the work pertaining to the order will be executed without unnecessary delay, and at this point it rests entirely

	NOTES
Window Display	Is it tidy and attractive? Is the lighting effect good? Is the display changed frequently? Do you get full value from this low-rate advertising medium? Lastly, do you attract the public eye with displays to further the cause of the various campaigns?
Floor Salesmen or Salesladies	Do they advance and greet the customer who has given them a lead by hesitating at the threshold, or do they sit unconcerned behind a desk? Is their appearance net and disposition good, accompanied by a natural smile? Are they familiar with routine and filing of orders or applications, and in a general way of the operating end of this department? Do they have a thorough knowledge of the goods they have to offer? If not, it is impossible for them to be enthusiastic.
Information and Order Clerk	A clerk to fill this position efficiently must necessarily be familiar with the routine of orders at the office and distribution department, and have a fair idea as to what the requirements are in executing the different orders. The personality and disposition of the clerk are of the utmost importance. If the majority of the applications and complaints can be received by one clerk, the possibility of error is lessened and the distribution department knows whom to communicate with if there is further information needed on any particular order.
Organization and System at Jobbing Shop	Filing of orders so that they may be easily located. Man familiar with the work and with street locations to assign orders. Inspection of work during and after completion.
Storekeeper	Furnish adequate protection of supplies so that he may be held responsible, and insist that requisitions be signed for material before it is removed.
Fitters and Helpers	Type desired. Instruction for good service.
Switchboard Operator	Qualifications necessary to insure service.
Sales Floor Display	
Salesmen	
House Maintenance Force	
Specializing or Campaign	
Be Alert for New Applications of Gas	

MULTIGRAPH COPIES OF IMPORTANT POINTS IN PAPER INCREASED DISCUSSION

with the company's employees to see that there is no time lost in complying with the customer's request.

Where the shop department is located at a distance from the office it is essential to arrange for the transfer of work orders so that they will arrive there in time to assign the work and requisition material prior to the time when the workmen report for work.

In the company where a large number of orders are received daily we frequently have telephone requests for information relative to delay in completing certain work. Some system is therefore required whereby the orders would be arranged in a way that the clerk can locate any particular job order without delay. It has been found very practical to divide the foreman's copy of orders representing work in process, and file alphabetically according to street location. Each half-day as the work is completed these foreman's copies are removed from the rack and the new orders assigned take their place. It is also well to divide the uncompleted orders as follows: "Held for Service," "Held for Street Main Extensions," "Held for Faulty House Piping," "Held for Material Ordered," etc. Orders left over after the work has been assigned could be divided and filed as meter orders, general orders, water heaters and appliances. To have absolute knowledge as to the amount and class of work that the fitters are doing, I believe it is necessary to have a practical man assign the work, after which he should leave the shop, making inspections of the work being done by the workmen, investigate new work contemplated, and arrange for the transfer of men who may be working without a team, so that the loss of time may be reduced to a minimum.

In the larger companies the storekeeper responsible for stock reports to the accounting department. We can appreciate how important it is to have all requisitions signed by the men accepting material before it is taken from the stockroom, and that the stock be handled by as few people as possible and well protected in order to place the responsibility where it belongs.

Fitters

All of us have a definite idea as to the type of man we desire to have meet the public; but during the years of the war it was very difficult, and even is at the present time, to obtain satisfactory help at a reasonable wage. One way to influence this class of labor in presenting themselves to the public in a way that would prompt the people to speak favorably of our service is to have meetings at intervals and demonstrate to the men the importance of their being particular in their approach and treatment of the customers, install appliances

(*Continued on page* 214.)

American Gas Engineering Journal

SIXTY-FIRST YEAR

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Contents of This Issue

Making It So When Consumer Pays His Bill He Will Do So Not Only with Thought in Mind of Gas Used, but Also of Huge Amount of Capital Invested to Bring that Gas to Him—By W. A. Fairservis..... 197

Count Up the Appliances Installed but Not in Use—By Edwin Dean..... 199

Applications of Gas to Laundries..... 200

Gas in Biscuit Baking..... 201

Gas Sales Association of New England Devotes Good Part of Season's Second Meeting to Devise Means of Getting Friendship of Consumers 203

Editorials 205

Personal Notes 212

Construction Notes 213

As the Journal Views It

Shackles Are Expensive

A great many people are concerned in the ownership of gas companies; so many, and some of them so obscure, that it would be a man-size task and more to definitely locate them.

Some own such small parts that they are never heard from. Others have larger holdings or have so earned the confidence of many smaller owners that it may be said practically control this stock. From such do we obtain our boards of directors.

These represent capital, that which makes possible the plants others operate, that which makes possible the very livelihood of an army of human beings that almost rivals in numbers the army of owners.

These representatives of capital; its spokesmen; as a general thing are not intimately versed in the details of gas company management, gas plant operation and distribution. Their acumen has been demonstrated principally in their ability to pick men to make their capital work and, in a general sense, in determining what is a sound business and what is unsound.

If these spokesmen of capital were as sure of their infallibility of judgment in picking men competent to manage gas plants as these operators are of their ability to manage them to the best advantage, a great many of the obstacles that seem to stand in the way of progress in the gas industry would in the instant disappear.

But capital is timid. Experience has taught it to be, and as applied to the gas industry the recent inflexible regulatory attitude has made it more so.

Given a manager who is wholly competent, and whose honesty is assured, the best policy it would seem, would be to give him free reign. He is a specialist in gas works matters, knows what his problems are and is

better equipped in specialized knowledge to find their solution than the spokesmen of capital.

Sometimes when a manager happens also to be a good salesman, by selling his ideas to the director he sometiimes gets practically a free reign. When he has—and he has been a competent manager and honest—the policy has proved advantageous. Shackles on the man whose technical knowledge and whose competence measures up to the job are expensive.

Worth Considering

The primary aim of any man is to make a living. That possible his natural inclination is pride of workmanship; the desire to put out a quality product.

On this reasoning we imagine any gas appliance manufacturer would prefer to have his product sold by the gas company than by a dealer. The quality idea is easier to sell to such a distributor. He reaps the consequences of inferior merchandise. The ordinary dealer can shift the issue to the quality of gas that is being served or pressures.

But there is a growing tendency on the part of manufacturers to question if it is good business.

It is unquestioned that some gas companies, perhaps many, are very amateurish as merchandisers as compared to the ordinary run of hardware dealers, etc. Manufacturers' representatives have seen among the gas companies sales policies and methods much that to their sophisticated eyes would have been ludicrous had they not represented a disquietingly weak link in their principals' distributing chain.

Besides there has been manifested a surprising ignorance on the gas company's part as to the vital interest the appliance manufacturer has in their sales plans. Many have curtailed efforts suddenly and so arbitrarily at times as would almost indicate that such steps were a matter of their own concern alone. Manifestly this is not fair to the appliance manufacturer. To a greater or less degree, proportionate to his trustfulness and the length of his acquaintanceship with the vagaries of the merchandising policies of the gas companies, he has entrusted his very existence to their good-will.

The American Gas Engineering Journal does not interest itself in this matter so much out of consideration for the appliance manufacturer as it does out of consideration for the gas company.

The appliance manufacturer, as a general rule, is a tolerably wise business man. He is well able to determine for himself on which side his bread is buttered. Should he determine, and we can be quite certain he will long before there is danger of his concern running on the rocks, that he cannot hope to secure competent and consistent distribution for his products, he knows full well to turn to do so and how to get his product on the display floor. It is possible that some of his number will have to compromise in their inherent desire to put pride of workmanship above everything, and think more of price relative to quality than is compatible with their natural inclination, to attract these new retailers, but where an actual question of survival is concerned too much consideration cannot be given the purely aesthetic.

As conditions now stand the manufacturer is a part and parcel of the gas industry, and a very considerable part. When we speak of the number of people represented by the gas industry we include the people employed by him as well as those employed by gas companies. Should he sever the bond that links him to us and merely manufacture appliances that use gas and sell them through what to us are alien agencies, his interests and ours are no longer interests in common, but may even be said to be conflicting interests. This accomplished we are a very much lesser industry than we now seem. We would not be nearly so important or in so good a position to, what might be said, command consideration.

The gas industry cannot afford to sacrifice anything in its appearance of sizableness. The inspiration underlying the organization of the American Gas Association was a realization of the imperative need of bringing the public to a realization of how sizable it actually is.

There is little need to point out to the gas company the undesirability of having the appliances that burn their gas provided by those who have an ample alibi in case they do not burn it efficiently.

It would seem that the gas company has so much at stake in his relation with the appliance manufacturer as to make it amply good business to conduct itself with such justice in its dealings with him as to forestall any such tendency to dissatisfaction with that relationship as is now apparent among representative manufacturers.

Things Are Hard—if We Are Weaklings

These are not pleasant times—not easy times. There are vexations innumerable; new and intricate problems without end.

They are the kind of times in which an individual possessed of even a thin "streak of yellow" inclines to shrivel up and say "it can't be done."

They are the kind of times in which strong men find their opportunities; rise from obscurity to high places; the kind of times in which such men find themselves and develop—from which they derive inspiration and "pep," and in the end acquire a confidence in themselves that carries them through on the crest of success until the end.

There is no obstacle in the present-day situation that is insurmountable; no perplexity that is impossible of

solution. Just as hard nuts have been cracked in the past and will be in the future.

A successful business can be done to-day just as well as it could have been done four years ago, except that in these days it requires real intelligence, real thinking, real doggedness of purpose and real work. In the old days an accident might have, and many did get by.

If we are weaklings we will find these are severe times. If we are men we will find them, on the contrary, delightfully thrilling, a challenge to our temper that exhilarates as we work and that provides that element of combat that makes work a pleasure. There is little fun in knocking over feathers, but there is in, for the first time, succeeding in pushing up that hundred-pound weight.

If we are weaklings we will gradually shrivel up and die. If we are worthy successors to the men who carried along the gas industry for more than a century, we will go on doing business very much as before, even merchandising, only with improvements.

Still Going

We hear a great deal about the utilities' inability to attract new capital due to the "pound of flesh" attitude that has seemed so manifest as to rates in some cases. But little has been said so far as has come to our attention on that other even more important point—their ability to retain and attract men.

Most every human being likes to be at least respectable in the eyes of his neighbors.

There has been too much loose talk as to the essential honesty of the utilities, too much "you do not come here with clean hands" aspersions, too much harking back to the history of more than generations ago when business subject to municipal control had to stoop to things it might not have relished in order to exist, for such was the spirit of the times. All this has a tendency to create a general impression that the utility is permeated with crookedness and can think of nothing except crookedness; that every legitimate plea for rate relief is but a gouge and attempted fraud. It tends to toss forth the utility from the folds of the reputable out into the fringe of the disreputable. And the disrepute of the company is reflected down upon the individual. If one works for an employer whose business is dishonest, he must of necessity be more or less dishonest himself.

Good men, and experienced, are leaving the gas companies at a more rapid rate than promising material is coming in. They are public servants and they have served dog-cheap.

They have denied themselves some of the good things of life to continue to serve, but when they continually see their loyal and unselfish efforts rewarded with doubt and suspicion it becomes too depressing. They feel that they see that the public will never appreciate, much less reward; and they quit.

The Certainty of Gas

Despite high prices fuel oil is still a lively and important competitor of industrial fuel gas.

Thus it would seem that it would pay the industrial fuel gas salesman, among the numerous other things it is essential that he know a great deal about, to make a thorough study of the oil situation.

Without going beyond the plant he has sold a good many gas installations over oil on the basis of straight shop disadvantages that oil fuel is burdened with as compared to gas.

But equipping a manufacturing plant is an expensive undertaking; too expensive to encourage putting in an equipment to-day that might have to be taken out to-morrow or several years beyond to-morrow. Would not the uncertainties of supply then seem a fair selling point against oil?

Add to the fact that the oil resources are rapidly diminishing, for instance, the statement often repeated lately that the use of oil may have to be prohibited in industrial establishments in the interest of the navy's supply, and we have a distinct threat to certainty of fuel supply as applied to oil. When anything gets scarce we can be assured that we are not the only ones who are going to be in the scramble to get a share of the little that is left.

From the Journal Sixty Years Ago

"Limelight" comes to the fore in Great Britain. The apparatus employed is a surface of lime against which gas is projected.

A dozen new gas companies are starting into existence. Data on hand convinces the JOURNAL that the increase in gas companies during the current year will be at least a hundred.

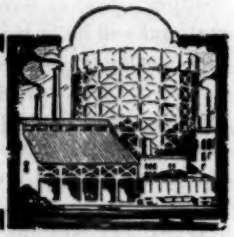
The Manhattan Gas Company (New York City) has completed a new laboratory "that may almost be called a national laboratory, so great is the dependence of minor gas works upon the Manhattan company for scientific experiments."

The Citizens Gas-Light Company, of Brooklyn, N. Y., invite proposals for the erection of their gas works.

The Bridgeton, N. J., Company in 1860, as well as the present, seems characterized by enterprising management.

The New Haven (Conn.) Company proposes to enlarge its works to a 1,000,000,000 cu. ft. a day capacity.

NEWS OF THE GAS INDUSTRY



Annual Meeting of Fall River Steam & Gas Pipe Co.

The Fall River (Mass.) Steam & Pipe Company, held its annual meeting recently and the following officers were elected: President, J. Edmund Estes; clerk and treasurer, Justin E. Read. Directors, J. Edmund Read and William A. Read. The following financial statement for the year was submitted:

Assets

Real estate	$15,261.62
Merchandise	26,241.49
Liberty Bonds	2,000.00
Cash	413.29
Accounts receivable	23,081.77
Total	$66,998.17

Liabilities

Capital stock	$22,500.00
Accounts payable	9,016.01
Notes payable	11,500.00
Surplus	23,982.16
Total	$66,998.17

American Gas Association Annual Convention to Be in November

The 1920 convention and exhibition of the American Gas Association will be held in the Hotel Pennsylvania, New York City, the week of Nov. 15-20.

Citizens' Association Passes Resolution Favoring Rate Increase

A resolution favoring a temporary increase in rates for the Kings County Lighting Company was passed Wednesday, March 3, by the members of the Citizens' Association of Fort Hamilton and Bay Ridge at its regular monthly meeting held in Fireman's Hall, 249 Bay Ridge Avenue. The resolution, which was proposed by Francis A. Regan, treasurer of the organization came at the end of a talk by Ralph Elsman, vice-president of the gas company, in which he stated that his company would not be able to care for its present consumers during next winter unless some relief was granted immediately. It was adopted unanimously and ordered forwarded to the members of the New York State Legislature, with a letter.

"In 1916, despite the fact that the European war had already had the effect of increasing the cost of living," said Mr. Elsman, "the legislature passed a law reducing the price of gas to eighty cents. This legislation was passed thoughtlessly and without knowledge, and I use the ward advisedly."

Mr. Elsman then discussed the condition of the company and declared that it would be necessary to spend $800,000 during the next eight months if his company is to survive. He explained that it is impossible for him to sell the securities of his company, and so the only relief remained in raising the rates.

"It would be a disaster to the community," declared Mr. Regan, in proposing his resolution, "if the company was forced into a receivership, and so I make the following resolution: 'It is the sense of this organization that we go on record that the Kings County Lighting Company should get a temporary increased rate to enable it to serve the community.'"

Change of Date for Pennsylvania Meeting

The 1920 meeting of the Pennsylvania Gas Association will be held in Philadelphia, at the Hotel Adelphia, on April 13, 14 and 15, instead of the 14th, 15th and 16th, as previously published.

The following papers will be read before the meeting:

"The Unsold Market for Gas," by C. E. Bartlett, Philadelphia.

"Main Laying," by H. B. Bryans, engineer, Counties Gas & Electric Company, Norristown, Pa. This paper describes the recent main extension from the Rainey-Wood Coke Company to Norristown and other districts supplied by the Counties Gas & Electric Company, including experiences during the changing over from water gas to coal gas.

"Latest Developments in Industrial Fuel," by Otto Lellep, New York.

"Financing Instalment Sales—Use of Trade Acceptances," by G. E. Messmore, chief clerk, Philadelphia Suburban Gas & Electric Company, Jenkintown, Pa.

"The Separation of Selling Costs from Operating Costs," by William G. Sterrett, auditor, Philadelphia Suburban Gas & Electric Company, Chester, Pa.

Address by a representative of the Pennsylvania Public Service Commission.

"Advertising Topics," by a representative of the American Gas Association, Advertising Section.

"Disposal of Waste from Gas Plants," by L. J. Willien, chairman of Waste Disposal Committee, American Gas Association.

Final Hearing on 80-Cent Rate March 22

The taking of testimony in the suit instituted by the Consolidated Gas Company to have the 80-cent gas rate law declared confiscatory and unconstitutional by the Federal Court having been concluded before Special Master A. S. Gilbert, the final hearing has been set for March 22.

Logan Company Wants to Sell Plant

Application has been filed with the Ohio State Public Utilities Commission by the Logan Natural Gas & Fuel Company asking permission to sell its Logan plant to the Ohio Fuel Supply Company. It proposes to let the latter company take care of Logan consumers. The Ohio Fuel Supply Company also has a distributing plant in Logan.

Believing that the Ohio Fuel Supply Company should not take on additional patrons when it cannot accommodate what it has, City Attorney Scarlett expects to protest against the move.

Massachusetts Utilities Authorize New Stock Issues

The Massachusetts Department of Public Utilities has granted the Fitchburg Gas & Electric Light Company authority to issue 6,937 shares of capital stock of $50 par, to be used in payment of floating debt already incurred for new construction, additions and improvements to property. The new shares will be issued at $60 per share. The Department also authorized the Lawrence Gas Company to issue 7,000 additional shares of capital stock of $100 par, the proceeds to be applied to the payment of an equal amount of outstanding promissory notes, which were due Dec. 3, 1919.

Brooklyn Union Gas Stock Authorized

The application of the Brooklyn Union Gas Company to the public service commission for permission to issue $2,000,000 stock for refunding purposes has been granted by Deputy Commissioner Alfred M. Barrett.

The order permitting the issue contains a clause prohibiting the use of the stock for any other purpose than the one stipulated. The company applied last year to the commission for permission to issue $2,800,000 in debenture bonds, $2,000,000 of which should be convertible into stock and $800,000 non-convertible, but the commission allowed only the amount needed for the $2,000,000 issue.

Kansas Natural Rate Case Decision Grants Increase

The gas case decision by Judge Wilbur F. Booth at Minneapolis, Minn., permitting the Kansas Natural Gas Company to increase its rate to certain distributing companies from 28 to 35 cents has been received by the clerk of the United States Federal Court in Topeka, Kans.

Officials of the distributing company said they had not been notified of the increase, but expressed the opinion that in view of the increase the price to the consumer would be increased to $1 at least, or 20 cents more than the present rate. It was explained that the distributing company would demand an increase of more than twice it will have to pay because the distributing company also has to pay for all loss due to leakage of mains.

By the court's order, Zone 1, comprising the field lines and towns of Independence, Coffelville, Parsons and Tyro, Kans., have a 20-cent rate. Zone 2, comprising the southern trunk and applying to several Missouri towns, has a 33-cent rate. Zone 3, comprising the northern trunk and branches, including Topeka, Kansas City, Fort Scott, Leavenworth and a dozen other northeastern cities, will have the 35-cent rate.

Western States G & E. Asks Permission to Issue Stock

The Western States Gas & Electric Company, which operates in the counties of San Joaquin, Humboldt, Trinity, Sacramento, Calaveras, Amador, El Dorado and Contra Costa, Cal., has asked the State Railroad Commission for authority to issue preferred stock of the par value of $603,000. The proceeds of the issue, according to the application, are to reimburse the company's treasury for moneys paid into the sinking fund and for the purpose of obtaining funds to enable the company to partly carry out construction plans for 1920.

Lawrence Gas Company Petitions $750,000 Capitalization Increase

A petition for an increase in capitalization of $750,000 has been filed by the Lawrence (Mass.) Gas Company, and is scheduled for a hearing before the Public Utilities Board in the State house, Boston. The proposed increase will bring the total capitalization to $3,250,000. Attorney J. A. Donovan represents the local company.

Improvements of the local plant with a resultant better service are the grounds for the petition. During the past year many changes have been made in the plant, and the scope of the service has been largely increased, according to the officials. The present capitalization is $2,500,000.

New York Natural Gas Rate Regulation Upheld

The Public Service Commission of New York did not exercise authority in violation of the commerce clause of the Constitution when it regulated rates charged for natural gas supplied to Jamestown, N. Y., by the Pennsylvania Gas Company, according to a decision made on March 1 by the United States Supreme Court in the case of the Pennsylvania Gas Company vs. the Public Service Commission of New York et al.

While holding that the transmission of gas by pipe line from one State to another is interstate commerce within the principles of cases already decided by the court, the thing which the State commission undertook to regulate was a part of interstate commerce but local in its nature, the court said.

"The rates of gas companies transmitting gas in interstate commerce are not only regulated by Congress," the court said, "but the Interstate Commerce Act expressly withholds the subject from Federal control."

The court said that until Congress acted in the matter the exercise of authority by the State commission is not a violation of the common clause of the Constitution. The case arose when consumers of Jamestown, which gets its natural gas from Pennsylvania wells, petitioned the New York State commission for a reduction in rates and the commission assumed jurisdiction. The Court of Appeals of New York sustained the position taken by the commission and the Supreme Court affirms this finding.

Court Refuses Brooklyn Company Injunction

Supreme Court Justice Samuel Greenbaum, Manhattan, has refused to grant an injunction restraining Lewis Nixon, Public Service Commissioner, Dennis O'Leary, District Attorney of Queens County, and Charles D. Lewis, Attorney General of the State of New York, from enforcing Chapter 125 of the Laws of 1906, which prescribes $1 for 1,000 cu. ft. as the rate to be charged for gas to consumers in the Borough of Queens, New York City. The injunction was asked for by the Jamaica Gas Light Company.

Justice Greenbaum granted permission to the city to intervene in the suit as a defendant, although not named in the original papers. He also granted the motion made on behalf of Public Service Commissioner Nixon to strike out from the gas light company's papers as irrelevant allegations that to earn 6 per cent on its investment at "the present valuation" it would be necessary to charge $1.17 for 1,000 cu. ft., that notice had been filed with the Public Service Commission of the company's de-

termination to charge $1.15 for 1,000 cu. ft., pending the outcome of the suit, and that the company intends to increase its rates from $1 to $1.15 per 1,000 cu. ft.

The court overruled a demurrer to the complaint wherein it was set forth that the plaintiff did not allege therein that it had supplied the standard quality of gas prescribed by law. As to this point Justice Greenbaum held that the company was entitled, until it could be proven otherwise, to the benefit of a presumption that the standard quality of gas had been supplied.

Rochester Company Installs Wireless System

The Rochester (N. Y.) Gas Corporation recently installed a wireless system at the Andrews Street office under the supervision of H. B. Krumb of the electrical laboratory. The power is received on a 15-minute peak basis, which has been measured by time-clocks and connected apparatus in the stations of the two companies. It has been found, however, that there were difficulties in the synchronizing of the clocks, and to obviate these difficulties of the wireless, which is tuned to receive the signals from the Government timing stations in all parts of the United States, has been equipped. Signals have been received from Arlington, San Diego and other stations, and the wireless is so tuned that it will be possible to receive signals from Honolulu and even from the great wireless system at Berlin.

Lone Star Gas Company Asks for Increased Rates

The Lone Star Gas Company asks an increase in the price of gas, if the present supply is augmented by the construction of additional lines, in a letter written to the distributing companies in North Texas.

F. M. Lege, Jr., general manager of the Lone Star Gas Company, stated that the construction of new lines to new fields to furnish Dallas or any other city on their lines with additional gas would only follow an increase of price in gas which would give the producing company a minimum price of 50 cents per 1,000 cu. ft.

At the present time the Lone Star Gas Company receives two-thirds of the gross earnings of the distributing companies. The contract between the Dallas Gas Company and the Lone Star Gas Company is for a period of five years, with about three years to run. Under this contract the Lone Star Gas Company will furnish such gas as can be procured without the construction of new lines and the development of new fields.

"If wells we are sinking in the proven fields come in and it is not necessary to build entirely new lines, Dallas and all the cities on the line will receive more gas," Mr. Lege stated.

In the letter to the distributing companies the Lone Star Gas Company outlines activities which are being carried out to secure additional gas, which includes the expenditure of $250,000 for producing wells in the present fields within easy piping distance of the present lines.

Order to Reduce Rate Rescinded in View of Labor Costs

The order of the Public Utilities Department, requiring the price of gas in Worcester to be reduced to $1.10 on and after March 1, has been rescinded by the department.

In its order the department says it is unable to convince itself that a reduction to $1.10 can be required fairly within a reasonable time, in view of the unprecedented price of labor and materials.

The petition of the Worcester Gas Light Company, that it be allowed to revise the order of the Board of Gas & Electric Light Commissions, was granted. The Public Utilities Commission made the decision following the hearing, at which the gas company officials presented the claim of the corporation, and Mayor Sullivan and City Solicitor Mawbey represented the city of Worcester.

The statement of the commission in making its findings says the gas company cannot be expected to reduce the price of gas to consumers because of the high cost of labor and in view of the financial losses sustained by two strikes in their plant last spring.

Farewell Dinner Given to E. S. Murphy

A farewell dinner was given to E. S. Murphy by members of the Utica Gas & Electric Company, at Utica, N. Y.

Mr. Murphy has been connected with the Utica Gas & Electric Company's organization in the capacity of purchasing agent for the past eighteen months.

Maxon Furnace & Engineering Company Organized

Announcement has been received of the organization of the Maxon Furnace & Engineering Company, with headquarters in Muncie, Ind. This company will handle all problems relating to the combustion of fuel, especially oil and gas, for industrial purposes, and to supply and install all of the necessary equipment therefor. It will also handle the entire output of the Maxon-Premix Burner Company, and will supply and install furnaces and burners for all industrial purposes where oil and gas are used as fuel, and will furnish repair parts, including refractory linings, for all apparatus furnished by it. It will undertake the solution of engineering problems relating to the combustion of oil and gas, including the design, layout and installation of the entire combustion equipment, where so desired.

Col. John Stephen Sewell, member of the American Society of Civil Engineers, formerly an officer of the Corps of Engineers of the Regular Army, is president of the new company, and H. R. Maxon, president of the Maxon-Premix Burner Company, is vice-president and chief engineer.

Mr. Maxon has had many years experience in the use of oil and gaseous fuels, and in the manufacture and use of devices for the successful application of such fuels. The new company will have the full benefit of his wide and varied experience, and the data accumulated by him in the solution of many diverse problems.

Elkhart Company Authorized to Increase Rates

The Indiana Public Service Commission has authorized the Elkhart (Ind.) Gas & Fuel Company to increase its gas rates as of February 1. The order provides for a 15 cent increase for domestic consumers and a 25 cent increase for large industrial users.

The commission found that the actual cost of producing 1,000 cu. ft. of gas was slightly more than five points. As a fifty cent net rate applied to large consumers under the old rates these consumers were getting gas for less than cost. The commission held that this should not continue.

The monthly minimum rate was increased from 50 to 75 cents.

The new net rates authorized follow: First 15,000 cu. ft. used in

one month, $1.10; next 15,000, $1; next 20,000, 90 cents; next 50,000, 85 cents; next 100,000, 80 cents, and all over 200,000 cu. ft., 75 cents.

To these rates the company is authorized to add ten cents a 1,000 ft. for bills not paid within ten days after bills are submitted. The old primary rate is $1.05. This is subject to a deduction of ten cents on each 1,000 ft. if the bill is paid promptly.

Boston Company Granted Increase

The Massachusetts Department of Public Utilities has authorized the Boston Consolidated Gas Company to fix its standard price per 1,000 cu. ft. at $1.10, an advance of ten cents, until such a time as the department may determine the need of $1.20, which is the price asked for by the company in the petition it filed last December. The present rate of $1 has been in effect since October, 1918.

The standard price is a figure set by the department under the sliding scale law of 1906 by which the company may fix its dividends. Under its working the maximum selling price to the consumer can be no higher than the standard price. In the past when the department has allowed an increase in the standard price its action has always been followed by the company with a similar increase in the selling price. In its decision the department says:

"The statute provides for a change in the standard price 'by reason of greater or less burdens,' 'by reason of improved methods in the art of manufacture,' 'by reason of changes in the prices of material and labor,' or 'by reason of changes in other conditions affecting the general cost of the manufacture or distribution of gas.'

"The city of Boston through its mayor is co-operating with this department in an investigation which will require at least three to four months to complete. In the meantime, upon evidence submitted at a hearing on the proposed increase and an inquiry into the finances and operating conditions of the company in which the department has had the assistance of an accountant employed by the city of Boston, we feel that a prima facie case has been made out for temporary relief to the extent of $1.10 per 1,000 cu. ft., pending a final order. Such temporary relief is not intended, however, as any indication of what may be determined to be the proper standard price for gas after the investigation has been completed."

Receiver Asked for Lone Star Company

Charging that the Lone Star Gas Company, of Dallas, Tex., has paid steady dividends but has failed to make efforts to supply citizens with an adequate supply of gas or to fill its contract with the subsidiary distributing company, the city of Dallas has filed suit in the District Court asking that a receiver be appointed for the company. A hearing has been set for March 15.

Notes of Executive Board Meeting of A. G. A.

A well-attended meeting of the executive board was held on Feb. 25 at the offices of the association in New York.

There were approved for election to membership fifteen gas companies, five manufacturer companies and fifty-seven individuals. Most of these applications are due to the efforts of the membership campaign.

The board will meet in Chicago on March 17, at 2.30 p. m., in the offices of the Peoples Gas Light & Coke Company, and on the evening of the same day those present will attend the dinner of the Illinois Gas Association.

The seriousness of the present gas-oil situation was the subject of extended discussion. A special committee of the board was appointed to make a thorough and immediate investigation of the subject. This committee, consisting of J. B. Klumpp, of Philadelphia, chairman; D. D. Barnum, of Boston; R. B. Brown, of Milwaukee, and L. R. Dutton, of Jenkintown, met immediately upon adjournment of the board meeting and its preliminary statement has already appeared in Service Letter No. 6 of the association, which also gives in full the resolution adopted by the board with regard to the oil situation and the action ordered taken in this matter.

A discussion of taxation matters led to a resolution authorizing the president to appoint a special committee to consider the subject of Federal taxation with special regard to the gas industry.

The secretary-manager reported that, with Paul Thompson, of Philadelphia, he had appeared before the National Bituminous Coal Commission and before the Sub-Committee of the Senate Committee on Interstate Commerce on Feb. 17 to present the position and views of this association on matters connected with the bituminous coal supply. Service Letter No. 5 reports this situation at length.

The recommendation of the joint committee of the manufacturers and accounting sections on the subject of trade acceptances was presented and received the indorsement and approval of the board, with the suggestion that the attitude of the Federal Reserve banks on the subject of trade acceptances be definitely determined before final recommendations to the membership are made.

The revised classification submitted by the Committee on Standard Classification of Accounts was approved and its use authorized as reflecting the views of the board in conferences with appropriate committees of the National Electric Light Association and the National Association of Railway and Utility Commissioners.

The board approved the week of Nov. 15-20 as the period for the second annual convention and exhibition, which will be held at the Hotel Pennsylvania, New York.

The appointment of a committee to co-operate with educational institutions, with a view to bringing to the attention of technical students the opportunity which the industry offers to those about to engage in business, was deferred until the March meeting.

The reports of the accounting, commercial, manufacturers', publicity and technical sections were presented by their chairmen. Gratifying progress is being made in the sectional work, all of which is organized and for the most part well advanced. Every effort is to be made to arrange the program for the annual meeting so that ample time will be allowed for the discussion of papers and reports. It is the intention to not withhold the publication of committees' reports until the annual meeting, but to make the results of committee work and recommendations arrived at available for the use of the membership as soon as completed.

Subscriptions have been received to finance the work of the Na-

tional Committee on Gas and Electric Service sufficient to meet the total expense incurred up to April 30, 1919, and to leave a small balance, which will be applied to cover the additional expense incurred by the resumption of the committee's activities in the fall of 1919, when the seriousness of the bituminous coal situation made necessary the reopening of the Washington office.

S. R. Bertron, Jr., Named Receiver for Texas Co.

S. R. Bertron, Jr., general manager of the Houston Lighting & Power Company, has been named receiver of the Texas Gas & Electric Company properties, formerly the Texas Southern Electric Company, operating gas, electric and ice plants in many south Texas cities. Mr. Bertron was placed under a $25,000 bond. The company's main plant is located at Victoria. The petition for a receiver for the company does not allege insolvency, and it is shown the company owns assets of a reasonable value of $3,500,000 and has an outstanding indebtedness of $1,500,000. The defendants stated to Judge Hutcheson that they believed that the properties, under a competent receiver, could be so managed as to place them on a paying basis and permit of a reorganization within twelve months.

The company was organized in 1914 by Boston capitalists and has been operating under a trust agreement. Randolph F. Tucker, B. Earle Appleton, Willard E. Glazier, Alexander Henderson, Thomas Hunt, John C. Rice, Nelson H. Munsie, all of Boston, are acting as trustees.

Personal Notes

EDWIN W. COBB, for the past twenty-eight years paymaster of the Peoples Gas Light & Coke Company of Chicago, died Feb. 20, after a short illness. Mr. Cobb, who was sixty-seven years of age, had been with the company for forty-six years.

WARREN L. BLAUVELT, consulting engineer, of Detroit, has been elected president of the Indiana Coke & Gas Company, of Terre Haute, Ind., and has changed his place of business to that address. Mr. Blauvelt has been in private consulting practice since he completed his service with the United States Fuel Administration at the end of 1918.

JOSEPH P. KANE, district superintendent for the Westchester Lighting Company in Port Chester, Rye, Harrison and Mamaroneck, N. Y., will sever his connection with the company April 1, after more than twenty-five years of service. He will engage in the real estate and insurance business with the firm of Austin, Knapp & Wakefield, of Port Chester.

Akron Establishes New Agencies in East

In order to take care of a constantly growing charging barrow business among gas plants in the Eastern territory, the Akron Cultivator & Manufacturing Company, of Akron, Ohio, has established two new agencies for this product—one in Boston and the other in Philadelphia.

L. W. Geffine has been made district representative in charge of the Boston office, with headquarters at 807 Oliver Building. His territory takes in the New England States.

Philadelphia headquarters are in the Morris Building with Messrs De Huff and Hopkins acting as district representatives. The territory embraces all of Pennsylvania, east of Harrisburg; southern New Jersey, Delaware, Maryland and the District of Columbia

Messrs. Geffine and De Huff and Hopkins have an unusually large acquaintance in the gas plant trade, having been engaged in that line of business for several years.

Colonel F. S. Benson, Gas Pioneer, Dies

Col. Frederick Shephard Benson, eighty-one years old, Civil War veteran and for many years prominent in the gas industry, died at his summer home, Atlantic Highlands, N. J., on Feb. 23, after a gradual decline from heat prostration last summer and a recent attack of influenza. His funeral services were held in St. Bartholomew's P. E. Church, Pacific Street and Bedford Avenue, Brooklyn, N. Y., on Thursday afternoon at 2 o'clock, interment following in Greenwood Cemetery.

Colonel Benson was born in Boston Nov. 29, 1858. He fought all through the Civil War from 1861, and later came to Brooklyn, where he was a resident of the Nineteenth Ward in the eastern district of Brooklyn for forty years. His city home was at 79 Wilson Street.

Colonel Benson was prominent in the gas manufacturing business in Brooklyn for thirty-seven years as chief engineer of the old Nassau Gas Light Company, and after its consolidation with the Brooklyn Union Gas Company was chief engineer of the eastern division of that company until he retired in 1907. He designed and built the Nassau gas works in 1872. He was for many years president of the Society of Gas Lighting, in which all his friends knew him as one of the gas manufacturing pioneers. He declined re-election to this office in December, 1918, on account of poor health.

Colonel Benson made many friends and was active in all civic affairs.

John D. Green Elected Vice-President of Acorn Works

At a meeting of the board of directors of Rathbone, Sard & Co., manufacturers of the Acorn stove, the following officers were elected: President, Russell E. Sard; vice-president, John D. Green; vice-president and secretary, Arthur M. Blanchard; treasurer, Sidney H. Kent; assistant secretary, William E. Palmer.

Mr. Green has been for many years well known to the stove industry, coming to this company from the Detroit Stove Works, with which he was associated in an official capacity for the past eight years. He has been in the industry for the past twenty-five years.

The other officers are and have been Acorn men of some years' standing, and are well known in their respective branches of the work.

G. S. SPEAKER, for eight years general manager of the Lebanon (Pa.) Gas & Fuel Company, has been transferred to the Bartles Oil Company, St. Paul, Minn. The Bartles Oil Company is owned and managed by the Henry L. Doherty & Co.

LUTHER GASTON, a former president of the Southern Gas Association, has been transfered from Spokane, Wash., to Lebanon, Pa., to take the position of general manager, formerly held by G. S. Speaker.

THOMAS MCDOWELL, formerly superintendent of the Nashville, Tenn., and Birmingham, Ala., gas companies, has been appointed superintendent of the Northern Alabama Gas Company's new plant at Florence, Ala., which has just been completed. Mr. McDowell will have entire charge of the new plant.

JOHN H. BARTLETT, of the Surface Combustion Company, of New York City, has returned to the United States after an absence of two years in France where he was engaged in introducing the system of utilizing gas. Difficulties have been met with in the matter of obtaining deliveries of materials. Nevertheless, some installations have been made, and within a very short time there will be a number of installations utilizing this system in France.

DODD HEATING SYSTEMS, LTD., of Toronto, Canada, have moved their offices to 504 Spadina Avenue, where they are housed in larger quarters.

Construction Notes

New Bond Issue of Cincinnati Gas Company

J. & W. Seligman & Co. and A. B. Leach & Co., New York bankers, are offering a new issue of $2,400,000 Cincinnati (Ohio) Gas & Electric Company 6 per cent three-year secured gold notes, due Dec. 1, 1922, at 97½ and interest. The dividend record of this company is one of the most remarkable in the United States. Dividends of not less than 4 per cent have been paid for over sixty-six years. The present rate of 5 per cent has been paid since 1910.

Contract Awarded

The contract for the erection of the Hartford (Conn.) City Gas Light Company's addition to its plant has been awarded to Conner & Poriss, Inc., of 50 Church Street, New York City. Engineers Ford, Buck & Sheldon, Inc., planned the new building, which will be of concrete, one story high.

Derby Gas Company Increasing Capital

The Derby Gas Company, distributing gas in the three Connecticut cities of Derby, Ansonia and Shelton, is increasing its capital from $1,500,000 to $2,000,000 by issuing 20,000 additional shares of stock, making the outstanding issue 80,000 shares.

Pontiac Company Installing New Equipment

Immediate expansion of gas plant and distributing facilities at a cost of approximately $325,000 is under way in Pontiac, Mich., and still further funds will probably be extended later this year, according to an announcement made by Manager B. G. Campbell, of the Michigan Light and Consumers Power companies.

The expansions to be put into immediate effect include provision for additional coal gas capacity in ovens and installation of additional scrubbing and condensing plants for both coal and water gas, installation of purifiers, and miscellaneous equipment of the gas plant including a locomotive crane, beside a radical extension in the distributing system as well as the generating plant. Feed mains and various appurtenances necessary to better the distribution system are already planned and will be installed as rapidly as material can be secured.

Official Proposals

Bids: March 6.

CONSTRUCTING INDUSTRIAL BUILDINGS

Lignite Utilization Board, Montreal.

Estevan, Sask.

The Lignite Utilization Board hereby calls for sealed tenders for the supply of material and erection

Building	Size	Style
Office and laboratory	29 ft. x 50 ft.	Brick veneer
Car house	16 ft. x 44 ft.	Frame
Crusher building	15 ft. x 20 ft.	Frame
2 Raw lignite bins	40 ft. high x 25 ft. dia.	Reinforced concrete
Dryer building	84 ft. x 40 ft.	Structural steel Brick curtain wall
Carbonizer building	84 ft. x 55 ft.	Brick curtain wall
Briquette building	55 ft. x 42 ft.	Brick curtain wall
Briquette bin	80 ft. x 16 ft.	Frame
Power house	100 ft. x 48 ft.	Brick bearing walls and wood roof
Coal shed	15 ft. x 42 ft.	Reinforced concrete
Coal shed	15 ft. x 60 ft.	Frame

of buildings at its plant near the Town of Estevan, Sask. The work comprises the purchasing of supply of material, the construction of a group of industrial buildings and a concrete reservoir, and the erection of a water tank on a 70-ft. steel tower. The building work is briefly described as follows:

A number of workmen's houses may be added to the contract later.

Complete plans and specifications with form of contract and tender will be available at the board's offices in Montreal, or at the office of Mr. J. M. Leamy, power commissioner for the Province of Manitoba, Winnipeg, on or after Feb. 9, 1920. Bids will close at the board's offices in Montreal at noon on Saturday, March 6, 1920.

Correspondents who are not known to the board will be furnished with the specifications, plans, etc., on depositing ten dollars which amount will be refunded upon the return of the specifications and plans.

The lowest or any tender not necessarily accepted.

R. A. Ross,
Chairman.

LESLIE R. THOMSON,
Secretary.

Montreal, Jan. 28, 1920.

Contracts Awarded

L. M. Farnham, of Los Angeles, has been awarded the franchise for the laying of natural gas mains along Tulare County (Cal.) highways by the Visalia Board of Supervisors.

Lansing Company Halts Improvements and Cancels Orders for Pipe

No more gas main extensions or improvements will be made, and all orders for pipe and other supplies have been cancelled according to the announcement made by the Lansing (Mich.) Fuel & Gas Company, as a result of the recent election at which the proposed new franchise was defeated.

The company also warns consumers to conserve, as otherwise it will be necessary to limit the hours when gas may be used and to shut off industrial users. No more coke will be sold, except to bakeries and manufacturers of food products; the company will use the coke in producing oil gas.

Action has been started by the company to go into bankruptcy, and

no efforts of the new gas commission named by Mayor Jacob W. Ferle can prevent it, the company declares.

The mayor has instructed City Attorney Samuel H. Rhoads to proceed with the suit against the company to enforce the franchise requirements of heat units and price of 80 cents per 1,000 cu. ft., but is also advising the people to pay $1.10, the price recommended by the council in a special ordinance.

Northampton Company Installing New Apparatus

The Northampton (Mass.) Gas Light Company has contracted with the Gas Machinery Company for the installation of an 8-ft. water gas apparatus, condenser and auxiliary equipment. This new water gas set will be installed in the space that was provided for same in the existing water gas building.

Leominster Company Ordered Water Gas Set

The Leominster (Mass.) Gas Light Company has placed an order with the Gas Machinery Company for a new 8-ft. water gas apparatus and auxiliary equipment, including condenser, exhauster and two 20-ft. diameter by 12-ft. high round steel duplex purifiers complete with 16-in. valves and connections.

Hartford Company Erecting Water Gas Apparatus

The Hartford City Gas Light Company, of Hartford, Conn., has awarded contract to the Gas Machinery Company for an 11-ft. water gas apparatus which is to be hydraulically operated, with interlocking valve box. This new water gas set will be installed in the same building and adjoining the three 10-ft. Gas Machinery Company sets which are now in Hartford.

Gas Sales Association of New England Devotes Good Part of Season's Second Meeting to Devise Means of Getting Friendship of Consumer

(*Continued from page* 214.)

in a good, workmanlike manner, and leave the place tidy upon completion of the work.

Heretofore we have considered the application or order given by the customer in person. Now we will follow the course of procedure when a customer places an order or complaint by telephone. The switchboard operator is in a position to facilitate this work with ease, or it can be made very burdensome to the customer. It is of first importance in acknowledging the call to greet the customer with a pleasant voice and to ascertain just what information is desired. It is very frequent that a customer is connected with three or four different employees before getting the person who can give the information or take the order. I wonder if many of you "listen-in" to conversations between the public and the different departments, as there is nothing more embarrassing to the customer than to be obliged to repeat a story several times.

If a person is the least bit vexed, for some reason or another, he will show it in a more decided way when telephoning than he would if talking to you face to face, and this fact should be borne in mind by the employee at the other end of the wire. He or she should give due consideration to this condition and so form his or her line of talk as to win the customer over. It is also the tendency of the public to overestimate the seriousness or lapse of time covering their complaint. This condition also must be considered and due allowance made; except in case of leak reports, which should be considered at their worst until investigated by an experienced man and proven differently.

This being a gas sales association, we should not deviate far without returning to the selling end of the business. In this connection I would say that we all feel the importance of carrying a line of appliances that represent the highest grade of workmanship and operate at a maximum efficiency. The public, to a large extent, leave it entirely to the gas men in deciding what type of range or heater will best suit their requirements, and the salesman can usually secure an order for the particular appliance which he believes is proper. It is therefore to be expected that the gas company's salesmen will not misrepresent any of its goods, as the customer would eventually lose faith in the gas company's representatives.

Window displays have already been mentioned, and the same general policy should be followed in the arrangement of the displays inside. The attractiveness of these is greatly governed by the general conditions of the sales floor, such as location of cashier's cage, stairways, passageways, etc.

It is often necessary for extra salesmen to be on hand during rush periods in order to transact business without causing customers undue delays. I am in favor of a sales force on the outside proportionate to the volume of business obtainable. In order to give the best service to lighting units and small appliances, I recommend that a permanent maintenance force be used, the number depending upon the size of the community, who would visit personally all homes, say, once in every nine months. In some companies it might prove advantageous to have these maintenance men sell all types of lighting units and appliances, as well as give maintenance to household equipment; while others find it more practical to limit their efforts to the selling of lighting units only. In either case I believe that the salary-and-commission basis has its advantages. A check can be obtained from the returns each day showing the amount of work the men had accomplished, and a visit by the inspector at a few locations covered by these men would be sufficient to convince us as to the quality of their work.

Industrial Specialist

In addition to the maintenance men we require general salesmen in localities where they are best fitted, and where the industrial field warrants it a permanent industrial man should be employed. Even if the industrial field consumed only one-half his time I would still recommend that he be retained and arrangements made for him to specialize on different lines during the remainder of the year.

The sales realized from campaigns on various appliances show conclusively that big things can be accomplished by concentration. In most communities I would much prefer to specialize rather than to have campaigns, and I might point out my distinction between the two. By specializing I mean to use a certain number of men, probably not more than two in the average size company; if possible, have

them demonstrate the appliance and apply their entire selling ability to that one line, paying them straight commission or salary and commission. By all means offer an incentive for them to boost up the sales record. This work does not necessarily need to carry with it any particular amount of advertising, whereas in campaign work it is usually customary to use a large amount of advertising space, have a large force of men, and cover the entire city.

I assume that all sales managers are thoroughly familiar with the importance of keeping a sufficient record of activities in the commercial department to enable them to make comparisons month by month and with the previous years, always using the highest goal as the one to be passed the next time.

It sometimes, however, requires more than the average effort to even maintain a normal increase. Therefore we must always be alert for possibilities to further our business, both in the sale of appliances and of gas.

New appliances for the application of gas were displayed in a number of booths at the New York meeting, and each week we hear of some particular furnace, oven, coal or oil burning appliance where gas can be substituted and give more satisfaction, even at a lower cost in many instances. Commercial men should persistently investigate along these lines, read carefully all literature in the journals pertaining to research work, and determine if there is an opening in their community for an application of a new idea. Also, attend all meetings, voice your thoughts, and find out what others are doing.

W. T. Carter, of Walworth Manufacturing Company, discussing Mr. Buckminster's paper, reminded those in attendance that modern selling methods must be intensified, but this specialization often leaves gaps. All employees should watch for chances to further interest in some other man's special line.

S. E. Gillette, of Danvers, declared it is their policy to make it as easy as possible to get meters or services installed and appliances connected. Sometimes we are obliged to require deposits for meters. Often, however, we do not even require the person to come to the office to sign a contract. We make it convenient to get and use gas.

W. T. Pease, of the Ruud Manufacturing Company declared: "Although I am not in a position to discuss the paper, I want to call your attention to a condition that does exist. Not long ago I sat in the salesroom of a large gas company. While waiting, I was interested in the sales talk by a floor salesman. This chap waited on a lady who was looking at room heaters. The conversation ran like this: 'I want a room heater.' 'Here is one for $3 and here is one for $5.' 'Are they good'? 'Oh, yes.' 'How long will it take to warm the room?' 'I don't know how large the room is.' 'It is an ordinary room.' 'Well, I don't know how cold it is, etc.' This sales problem must be solved along the lines of education. Hold meetings for your employees. Have your friends buy appliances so that they may post you on the sales methods of your salesmen. We appliance men have a great number of gas companies on whom we call. We are in your office just as long as you can keep us occupied. I have many times given a salesmanager the best talk I could on an appliance, only to find later that very little of it had seeped through to the salesmen on the floor. Arrangements should be made to have every floor salesman obtain first-hand the necessary information to enable him to sell appliances properly."

Mr. Higgins, of Providence, said some commercial managers object to the mingling of appliance salesmen with their floor salesmen. After the appliance is sold to the gas company, there can be no objection to the teaching of the floor salesman by the appliance salesman.

Mr. Tudbury, of Salem, thought Mr. Higgins' idea good. "We try to boost sales of appliances," he declared. "Sell me first and then sell by salesmen in a group. We want an organization to which the appliance salesmen will have a chance to present the real selling points after the company has purchased the appliances. We would like to have the manufacturers who sell goods to Salem come and tell our men about the business. Regarding house maintenance, I want to ask Mr. Buckminster how long a time, in a company which has never done this work, should be required to cover the territory? How many meters per man could we allot? Is it possible to get the thing on a basis of perhaps 2,000 meters per man per period of time? Before the appliance is really sold, it must be properly adjusted, and the customer must be satisfied that the high bill which naturally results is proper. Should the accounting department or the new business department handle high bills?"

Mr. Buckminster replied that in Fall River the inspectors make between sixteen and seventeen calls per man per day. On that basis can be figured the number of men per territory. In starting this service, get over the ground as quickly as possible. On high bills have a clerk—order and information clerk—to whom all orders, all applications, and all complaints are first taken. If the number of people waiting to speak to this clerk becomes unusually large, the commercial manager is near at hand and can help to handle the situation in rush moments. Complaint adjustment is under the supervision of the commercial department.

Mr. Barnes, of Cambridge, said regarding high bills, the customer goes first to the billing department. Then, if necessary, the meter is reread. If the consumption is increased, the matter is then turned over to the appliance department. A man is sent to the house to investigate the condition and use of all appliances. It is often found that they have some appliance which is wasteful. Then the sale of a new appliance results.

Mr. Buckminster advised: "Don't send a shop man, send a salesman."

Mr. Higgins declared: "I am convinced that a salesman should not have anything to do with the disagreeable part of the business. Let him engender good-will only. Never use him to fix troubles, leaks, etc. Regarding leaks, these do not come under my jurisdiction, but during our strike, we handled them. I found nine out of ten complaints unfounded. One in ten might cost the company lots of money. Use a time stamp. Be able to prove a case in court if necessary. Regarding compensation in companies where fitters take orders—I suggest that you pay a man for what you want done, and fine him for doing what you don't want done."

Mr. Buckminster said: "I separate collecting bills and correcting troubles."

Mr. Gould agreed with Mr. Buckminster. "Salesmen are hired to sell service and satisfaction through the sales of appliances. Salesmen are selling themselves and their company."

Mr. Palmer, of the Welsbach Company, stated: "Once when I was a solicitor I found that I could double my business by going back to my customers in about one week to see if the appliances I had sold them were satisfactory. If a customer is satisfied, he or she will readily give new prospect leads to the solicitor."

J. C. D. Clark, of Boston, wanted to mention just one point—the telephone. "Put a practical man on your telephone. Take the girls off. Save yourself money, time and good-will. Thirty per cent of the Chicago selling is done by the telephone department. The maintenance paper I read at the A. G. A. convention will soon be printed. The only method you have of holding your business is by maintaining appliances. There are two kinds of maintenance—repairs and adjustment."

Mr. Eavenson, of Fall River, wanted to know about the compensation for a floor salesman over his salary. If some one says: "I want a water heater," the salesman talks the nearest appliance.

Mr. Buckminster said sufficient compensation should be paid to induce them to sell to the satisfaction of the commercial department.

Mr. Anderson, of Brockton, added: "Our company offers salesmen a commission in addition to salary. It is not, however, the same compensation that is paid to outside salesmen. Our sales have been very much increased."

Mr. Young observed that that plan was tried in Omaha. The manager had trouble getting a high grade of salesmen until he tried salary plus commission. His difficulty then became getting into stock and keeping in stock a sufficient supply or high-class appliances.

E. S. Stack wanted to know when is an appliance really sold—when an order is taken or when an appliance is really installed?

Mr. Woodhead, of Arlington, declared: "I sympathize with Mr. Pease. I know how difficult it is to get definite information to each salesman. The information we want should come to us from the manufacturers, and I believe that the manufacturers have always been and always will be ready to give this information. We find it desirable to give commissions to men on jobbing work. We have given jobbers permission to sell on company time if necessary. Prior to the war we had two employees on house maintenance work. The calls per day depended upon the houses per mile of street. The average was between 20 to 24 calls per day per man. Many companies pay salesmen to act as representatives as well as salesmen. We often find salesmen can settle complaints better than any one else because they know the people. They are accustomed to meeting people and are fitted to do that kind of work. Recommission paid salesladies in the office—in a small office, perhaps there is no saleslady on the floor at the time a customer comes in and a clerk has to act as saleslady. Incorrect and misleading information is often given out under just such circumstances. A small commission would act to induce clerks to learn the necessary information."

Harry Norton asked: "Has any attempt been made to teach customers to read meters in connection with high gas bills?"

Mr. Anderson, of Brockton, declared that after selling appliances, our salesmen go back to the job to get the signed approval of the customer to the effect that the appliance has been installed and adjusted properly. This eliminates complaints."

Elmer S. Stack wanted to know how does the manager know that the appliance is functioning properly and selling all the gas it can?

Mr. Fancy, of Newton, offered as to the work order schedule: "We have our work order schedule so arranged that the man at the office can tell readily just when any work can be done. I believe high bills should be handled by the office manager. One high bill complaint creates another. Don't let one customer hear another customer argue about high gas bills."

Mr. Barnes, of Cambridge, said: "We always send out cards telling how to read meters when we have complaints for high bills. We have a regular printed form for that work."

Mr. Woodhead, of Arlington, added: "We also have a standard form and send one to each customer twice a year. We found that in sending this notice out, we had fewer complaints."

Mr. Barnes, of Cambridge, emphasized: "We show complaint customers that the gas consumption this year is practically identical with the consumption for the same month last year.

Mr. Gould put in: "Electric companies have charts showing the dark hours each month of the year. In one company for which I worked, we kept actual record of dark hours each day during the previous month."

Mr. Barnes, of Cambridge, stated further: "We had copies made of Mr. Jenk's paper regarding tests of meters. We can't give these to everyone, but many customers are in a position to appreciate the paper."

J. C. D. Clark, of Boston, declared: "Prove to the customer that he burns the gas for which he is charged. Show him how to reduce the consumption in his home by discovering where the gas goes each day."

Mr. Fancy, of Newton, voiced this thought: "Regarding dark hour charts and peaks and valleys, I suggest that before you talk dark hours to a customer, you make sure that he has gas lighting."

Mr. Anderson moved a vote of thanks to Mr. Buckminster for his paper. The motion was carried unanimously.

A Possibly Overlooked Market for Heaters

The street-corner shanty in all probability doesn't appeal much to the eye of the passing gas salesman as a market for his wares.

But hark to the words of Robert E. Livingston, official spokesman for the Consolidated Gas Company of New York. Mr. Livingston apparently likes to see the inside of things. Some might even term him inquisitive. What otherwise could have prompted him, as told in Gas Logic, to wonder how his news vendor managed to keep so comfortable in her wind-swept corner shanty?

"A customer had advised her to put in a gas heater."

There must be a good many such prospects for gas heaters as yet unsold. Possibly most of the shanties have heat of some sort. Most likely oil stoves. And the average run of oil stove is somewhat smelly, a decided objection in so confined a place.

Why not pause long enough in our efforts to sell gas heating to the skyscraper immediately behind to leave a few heaters behind in some of these numerous corner shanties?

Iowa Supreme Court Sustains Higher Rate

The Supreme Court of Iowa has handed down a decision holding the Sioux City council was acting within its legal authority when it increased gas rates in Sioux City from $1 to $1.10 per 1,000 cu. ft. The supreme body affirmed the decision of Judge W. G. Sears in District Court, who decided in favor of the council.

Shortly after the increased gas rate took effect J. R. Selkirk, representing a body of labor union men, and J. L. Kennedy, a lawyer, began action against the Sioux City Gas & Electric Company, asking that the company be restrained from enforcing the new rate on the ground that the city council had no right to either raise or lower the rate.

The labor men pointed out that the franchise of the company allowed only the $1.10 rate. Kennedy argued that since the franchise made no provision for the raising and lowering of rates the council could not legally change them without a vote of the people.

Following Judge Sears' decision in favor of the gas and electric company the case was appealed to the Supreme Court.

Last week the council passed an ordinance reducing the rate to $1 per 1,000 cu. ft. The gas company applied to the United States court for an injunction restraining the enforcement of the $1 rate and asked that the company be allowed $1.10 per 1,000 cu. ft. The $1 rate is confiscatory, according to the appeal made by the gas company, and the Federal court granted a temporary order restraining the council from enforcing the $1 rate.

Counsel for Massachusetts Gas Company Opposes Bill

An investigation of the gas and electric companies of the State of Massachusetts is urged by representatives of various improvement associations of greater Boston, at a hearing before the legislative committee on public lighting on a bill of Representative Elihu D. Stone, of Boston, requiring that the price of gas or electricity shall not be increased without approval of the department of public utilities of the State.

"Under the present law," declares Raymond P. Delano, who represents the United Improvement Association of Boston, "the consumers of gas and electricity are forced to pay any price charged, up to the maximum approved by the State department. In some cities where the price has not been fixed by the department these companies arbitrarily raise their prices, and it is then up to the consumers to appeal to the department. This involves a long delay and in practically every such case the increase is eventually allowed."

Opposing the bill, Everett W. Burdett, counsel for the Massachusetts Gas Company, told the committee that it would be impracticable for the State to attempt to fix the price of gas and electricity, except for public streets and buildings. "A large part of the business of these companies is subject to competition," he declared, "and if the State should arbitrarily fix prices it would cripple the companies and in the end react upon the consumers."

Dr. Garner Corrects Erroneous Idea as to Effect of Gas Stripping

There has been discussion recently as regarding the "stripping" of natural gas—that is, the recovery of gasoline from the gas by a method of absorption—and the effect of the heating value upon the commodity. Dr. J. B. Garner, director of gas research at the Mellon Institute of Pittsburgh, Pa., has issued a statement in which he says that "stripping" of natural gas for the recovery of gasoline by a method of absorption does not affect the heating value of the commodity.

"The conclusions to be derived with reference to the 'stripping' of gasoline from natural gas, if accepted by the public, would most certainly give them a most incorrect conception of the process of natural gas gasoline recovery and its influence upon the volume and heating quality of gas as delivered to the domestic consumer," Dr. Garner said.

"The gasoline is recovered, or stripped, by a process which, prior to the installation of absorption gasoline plants, was deposited in the transportation lines and drips between the walls and the distributing system for the consumer. Most of this gasoline never reached the consumer in the form of gas, but was blown out through the line drips, thereby being lost to everybody. Its presence in the lines constituted a constant source of annoyance and expense, in that the gas, in its passage from the wells to the consumer, was interfered with and at times the gasoline was deposited and exerted a solvent action on the rubbers which were used in the construction of the pipe lines, so that large leaks, not only of gasoline but of natural gas, occurred.

"Frequently accumulation of water and gasoline in the transportation lines resulted in blowouts and losses. At each blowout the service to the domestic consuming public was interrupted and large volumes of natural gas were lost. With the installation of absorption gasoline recovery plants not only has gasoline been saved at these plants but domestic and industrial service at different points from the gas field has been made more continuous, less interrupted and more efficient than at any time prior to the installation of these plants. No blowouts have occurred, and as a result there have been no losses of natural gas due to these.

"Aside from the benefit derived by the consumer by less interrupted and more continuous service, a product has been recovered which was formerly a waste and of no value to the consumer, and which of itself has a very important economic value."

West Side Gas Company Incorporation

The West Side Natural Gas Company, capitalized for $200,000, has filed articles of incorporation in Kern County, Cal. The directors are Joseph McDonald and J. I. McKean, of Taft, and J. I. McKean, San Francisco.

The Midway Gas Company purchased a franchise for a gas line across Tulare County at sale before the board of supervisors, for $235. Ben B. Dudley, one of the discoverers of the Lost Hills Oil Field, bid against L. N. Farnham for the Midway franchise.

Recently the Midway Gas Company and Farnham secured two gas line franchises in Kern County for $100 each, they being the only bidders.

Handbook of Quantitative Analytical Chemistry in Preparation

The Chemical Catalog Company, Inc., 1 Madison Avenue, New York, have just completed the arrangements for the publication of a handbook or a compendium of quantitative analytical chemistry. The author is a member of the faculty of one of the universities devoting special attention to chemistry, and has had extensive experience in applied chemistry and in chemical engineering. It is planned to include every method given in chemical literature, both in English and in foreign languages. The work will be in two volumes, one Inorganic and the other Organic. The Inorganic volume will be published first. Every journal and book likely to contain methods of quantitative analysis will be carefully searched. The material will be thoroughly indexed, not only under the elements and compounds, but also under the commercial articles in which the element is to be determined. Copious references to the original literature will be given.

The author will be assisted by the editorial staff of the Chemical Engineering Catalog and by a selected clerical force.

The price of the volume has not been announced, as it cannot be determined until the work has proceeded long enough for costs to be calculated with some precision. Every effort will be made to keep it low enough to make the book available to every chemist interest in quantitative analysis. More detailed announcements will be made from time to time as the work nears completion, and those interested will be given an opportunity to subscribe in advance of publication.

Forks Well Down 1,700 Ft. Encountering Good Gas Flow

The oil well being drilled by the Forks Drilling Company at Forks, Clallam County, Wash., reached a depth of 1,700 ft. At that depth the gas pressure was enormous, and has been increasing steadily, according to statements received from Seattle, Wash., and also that the well is in good condition, and fair progress is being made, but that considerable difficulty is being experienced on account of the gas pressure. At the 1,700-ft. level, and for some distance above that the formation had been a fine grained, moderately soft blue shale. This formation, it was stated, is compact enough to exclude all but a small amount of oil, but not the gas.

Except for 40 ft. of sandstone at the surface, the well has been entirely in shale, aside from a few thin strata of conglomerate. Ordinarily new gas has been encountered for every foot of the way from the time it first began flowing from the well when it had been driven only a short distance down. Certain sections of the shales have been hard enough to form partial caps, with more open areas below with the shales there saturated with oil.

MASSACHUSETTS GAS COMPANIES' combined net earnings available for dividends of subsidiary companies for January were $304,882, an increase of $12,206, or 4.17 per cent compared with corresponding month a year ago.

Annual Report of Portland Gas Light Co. Shows Improvement

The reports submitted at the annual meeting of the Portland (Ore.) Gas Light Company show unsatisfactory results for 1919 from a financial standpoint, although the results were somewhat better than in 1918. The reports follow:

	1919	1918
Gross earnings	$562,609	$466,289
Operating expenses	464,750	419,109
Net earnings	$97,858	$47,179
Interest	49,308	31,683
Net after interest	$48,550	$15,496

ASSETS

Fixed capital, land, buildings:	Dec. 31, '19	Dec. 31, '18
Permanent equipment	$1,844,344	$1,798,011
Active assets	219,996	114,039
Inventory assets	140,866	238,915
	$2,205,207	$2,150,967

LIABILITIES

Capital stock	$1,000,000	$1,000,000
Funded debt—bonds	200,000	200,000
Funded debt—three-year notes	500,000	500,000
Floating debt—demand note	10,000	.....
Dividend payable Feb. 2	30,000	15,000
Current liabilities	17,510	15,577
Accrued liabilities	20,379	15,022
Reserve for depreciation	235,063	230,644
Sinking fund reserve	35,000	35,000
Recon. and contingent reserve	144,065	124,911
Employees' relief reserve, etc	13,188	14,810
	$2,205,207	$2,150,967

United Company Brings in 16,000,000 Cu. Ft. Gasser

The United Oil & Natural Gas Products Corporation, composed largely of Texas capital, with C. A. Barber, of Houston, reported as president, and Sales Manager C. L. Kerr of the Gulf Refining Company as its secretary and treasurer, has brought in its initial gasser, with capacity of 16,000,000 cu. ft., known as Guthrie No. 1, fifteen miles north of Monroe, La.

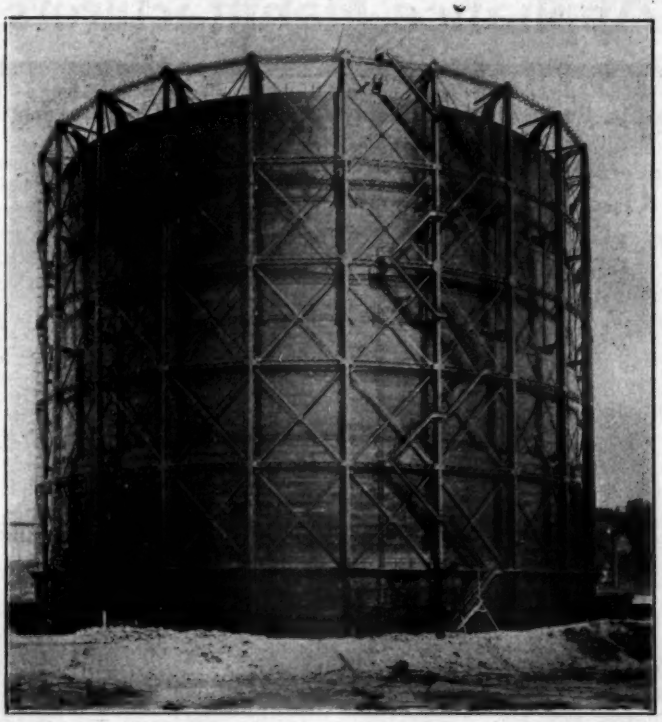
The same company, besides drilling, is pushing work on 100 carbon black burning houses and a gasoline plant at Cargas, near Guthrie. The company has acquired 5,000 acres in the Ouachita territory.

WILMINGTON (DEL.,) GAS COMPANY employees held their annual dinner at the office building of the company on Feb. 1. Officers of the company and a few invited guests provided the speaking and entertainment for the evening. These dinners are always well attended and looked forward to by the employees. Information covering the company's business affairs was included in the program, as well as entertainment features.

RITER-CONLEY CO.

PITTSBURGH, PA.

PURIFYING BOXES



STEEL TANKS

BUILDERS OF

TWENTY YEARS EXPERIENCE **GAS HOLDERS** HAS TAUGHT US HOW

STEEL CONSTRUCTION OF ALL KINDS

Philadelphia	Pottstown	Detroit	Chicago	Cincinnati
Washington	New York	Boston	Syracuse	San Francisco

GAS PURIFYING MATERIALS

NATRONA RED ORE
To Be Mixed With Fluffing Material

MINERAL SPONGE
The Best Fluffing Material

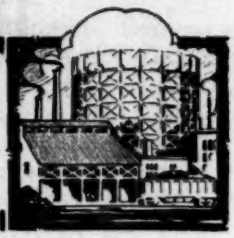
MINERAL SPONGE OXIDE
Prepared For Use

PENNSYLVANIA SALT MFG. CO.

WIDENER BUILDING

PHILADELPHIA - - - - - - - PENNA.

With The Equipment & Appliance Manufacturers



Conducted by Business Department of American Gas Engineering Journal

"Superior" Meter Provers Described in Bulletin 15 Issued by the Superior Meter Co.

The Superior Meter Company, Bush Terminal, Brooklyn, N. Y., recently issued Bulletin No. 15, describing "Superior" meter provers, giving a complete description of construction, information in regard to the care and use of provers, and complete "Percentage of Errors" tables. It states:

"An innovation in the construction of meter provers is the use of a Monel metal bell. This metal is non-corrosive, as strong as steel, and about the same weight as copper. It is not necessary to paint a bell made of this metal, as it takes a high polish. Water will not adhere to its surface if the bell is kept polished and slightly oiled, thereby reducing the temperature changes due to evaporation.

"Superior provers contain many improvements in construction, annular tank, steel posts, base raised 3 in. from floor and resting on leveling screw feet. Adjustable rollers prevent binds; top of bell is heavily braced.

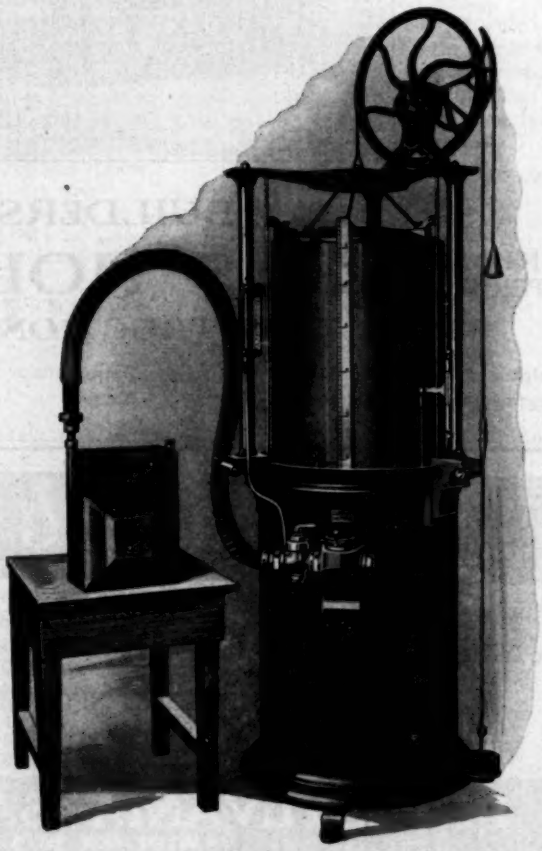
"Another improvement is a solid pipe across the air chamber to which both large cocks are screwed. This overcomes any possibility of straining the air chamber and prevents leaks. The air valve is of improved design, with steel spring and removable dust cap.

"All the necessary instruments and connections are furnished with each prover."

A copy of this bulletin will be sent on request.

Development of Oil Gas from the Distillation of Vegetable Matter, Oils, Etc.

The Hyco Fuel Products Corporation, 120 Liberty Street, New York, recently issued a booklet describing the development of oil gas from distillation of vegetable matter, oils, etc., to its production from crude petroleum. Drawings of sectional elevation of the kiln are shown; also a plan view of the kiln, together with a description of the Hyco fuel gas generator. It also shows drawings illustrating a gas generating installation and combined gas generating and motor fuel installation. It is claimed that by this process oil and water, properly mixed by pressure, temperature and velocity, are converted into a permanent gas which may be delivered through the ordinary piping system to an engine or burner for immediate use. It is also claimed that certain temperatures and pressures will produce all gas with no by-product. Copy of booklet will be sent on request.



SUPERIOR METER PROVERS